I-270/MD 121 - Cabin Branch
Project Planning Study

Montgomery County, Maryland

Purpose and Need Statement

Cabin Branch Management, L.L.C.

June 2006

Project Purpose

The purpose of the I-270/MD 121-Cabin Branch Project Planning Study is to improve vehicular, transit, pedestrian, and bicycle accessibility and provide safety and capacity improvements at the I-270/MD 121 interchange as a result of the Cabin Branch development. While this study is a break-out study of the I-270/US 15 Multi-Modal Corridor Study, its top priority is to maintain the level of operations and overall integrity along the I-270 corridor and to not preclude consideration of any feasible improvement alternatives for the larger Multi-Modal Corridor Study, including the proposed full interchange at Little Seneca Creek Parkway, formerly known as Newcut Road.

This study will develop alternatives within the footprint of the existing MD 121 interchange that address immediate needs of the Cabin Branch development and pipeline developments in the Clarksburg area prior to the finalization of the I-270/US 15 Multi-Modal Corridor Study. Proposed alternatives will be consistent with the Montgomery County Comprehensive Plan and include a series of improvements required by the County and the Maryland State Highway Administration (SHA) involving widening of the MD 121 bridge over I-270 to a four lane bridge, signalization of ramp termini on MD 121 and constructing a new southbound ramp to I-270. These studied alternatives must also tie into proposed improvements being planned or underway along MD 121, which include the proposed widening of MD 121 to a four lane divided highway to the west as well as the extension of Stringtown Road to the east as part of County's Stringtown Road project.

Proposed alternatives for this study will adequately address 2015 traffic projections, until such time when the I-270/US 15 Multi-Modal Corridor Study is completed, which addresses 2030 conditions involving capacity, transit, Express Toll Lanes (ETL), and High-Occupancy Vehicle (HOV) accessibility for the Clarksburg area and multi-county region.

The developer, Cabin Branch Management, L.L.C., will fund the entirety of the I-270/MD 121-Cabin Branch Project Planning Study, including expenses for review by SHA.

Background/Project Need

The I-270/MD 121 interchange is located in Clarksburg, Maryland in northern Montgomery County. The I-270/MD 121 interchange provides regional access from corridor cities to the south (Germantown, Gaithersburg, and Rockville) and to the north (Hyattstown and the city of Frederick) to the Clarksburg Town Center, Comsat and Gateway 270 employment centers, as well as residential neighborhoods in Clarksburg. Clarksburg Road (MD 121) provides local and regional access to the Clarksburg community.

The project limits for the study area *(Figure 1)* are:

- West Old Baltimore Road underpass to the south;
- I-270 at the Ten Mile Creek Tributary crossing to the north;
- Intersection of West Old Baltimore Road and MD 121 to the west; and
- Northbound I-270 to Eastbound MD 121 Off-ramp Terminus to the east.

The Clarksburg area is undergoing a transformation from a rural area to a small town. According to the Montgomery County Department of Park and Planning, the population tripled between years 2000 and 2005 (a growth rate of 219 percent), and is projected to grow by another 154 percent between years 2005 and 2010. In comparison, Montgomery County's growth rate was eight percent between years 2000 and 2005, and is projected to grow by another six percent between 2005 and 2010.

The recent growth in Clarksburg can largely be attributed to several new developments located in the vicinity of MD 121, east and west of I-270. These developments not only have an effect on the population growth, but SHA data revealed that between years 2001 and 2004, Annual Average Daily Traffic (AADT) volumes on MD 121 have been increasing steadily. Between years 2001 and 2002, AADT volumes on MD 121 west of I-270 increased by 45% and AADT volumes east of I-270 increased by 28% as shown in *Table A-1*.

One of the new developments planned for Clarksburg is the Cabin Branch development. This 540-acre, mixed-use development site will be constructed in the southwest quadrant of the interchange at I-270 and MD 121. Its boundaries are Clarksburg Road (MD 121), a rural major collector to the north and west; West Old Baltimore Road to the south; and I-270 to the east. It is within the Priority Funding Area (PFA) and the Clarksburg Policy Area of Montgomery County *(Figure 2)*.

The Cabin Branch development will be built in two phases. In 2004, the Montgomery County Planning Board approved the Phase 1 Cabin Branch Preliminary Plan of subdivision for 1,600 dwelling units, 1.5 million square feet of employment uses and 500 dwelling units for elderly housing. Its estimated timeline for implementation is 2015. The Phase 2 Preliminary Plan (with a remaining 286 dwelling units and 898,000 square feet of employment uses) is pending Planning Board action. The estimated timeline for implementation of Phase 2 is between 2015 and 2030. Peak hour trips in and out of the site for Phases 1 and 2 via MD 121 and West Old Baltimore Road are provided in *Table A-2*.

Eleven other previously approved pipeline developments are located within the Clarksburg Policy Area of Montgomery County, primarily east of I-270 *(Figures 3 and 4*). Among them are the Gateway 270 Corporate Park, the Clarksburg Town Center, the Adventist Health Care facility (subject to Certificate of Need) and Clarksburg Village. These developments anticipate more than 856,000 square feet of new office/retail/industrial and mixed-use space with 6,414 residential units, and their estimated timeline for implementation is between 2015 and 2030. The total number of peak hour trips generated from these developments is also reflected in *Table A-2*.

Existing and Future Traffic Conditions

Existing Traffic Conditions

Existing peak hour critical lane volumes (CLV) were calculated at ramp intersections on MD 121 based on procedures followed by the Maryland - National Capital Park and Planning Commission (M-NCPPC). According to the Annual Growth Policy for this policy area, the CLV must not exceed 1,450. Results yielded CLV's of 473 (AM) and 440 (PM) at the northbound ramp and 321(AM) and 217 (PM) at the southbound ramp as shown in *Table B-1*. The CLV exceeded the maximum volume at five locations outside of the project limits.

The Level of Service (LOS) was calculated during AM and PM peak periods on segments of I-270 before and after the MD 121 interchange using the Highway Capacity Manual (HCM), 2000 Edition. LOS A through C indicate free-flowing to stable flowing conditions, while LOS D through F indicate moderate to stop-and-go conditions resulting in significant delays. The results, based upon 2004 peak hour volumes interpolated from the SHA I-270/US 15 Multi-Modal Corridor Study, yielded LOS values between A and C as shown in *Table B-2*.

Future Peak Hour Volume Increases at MD 121 Intersections

Results of the Local Area Transportation Review (LATR) for the Cabin Branch Phase 1 development and approximately 90% completion of the eleven pipeline developments indicate that the projected peak hour CLV would increase above existing conditions by 196% (AM) and 241% (PM) at the intersection of MD 121 with the northbound I-270 on/off ramp. Higher increases of 237% (AM) and 298% (PM) are projected at the intersection of MD 121 with the southbound I-270 on/off ramp as shown in *Table C-1*.

Results from the Cabin Branch Phases 1 and 2 and 100% of the eleven pipeline developments indicate that projected peak hour CLV would increase above existing conditions by 208% (AM) and 228% (PM) at the intersection of MD 121 with the northbound I-270 on/off ramp. Likewise, higher increases of 313% (AM) and 358% (PM) are projected at the intersection of MD 121 with the southbound I-270 on/off ramp as shown in *Table C-2*.

Future Traffic Conditions at Mainline Sections and Ramp Junctions

The forecasted 2015 and 2030 peak hour no-build traffic volumes used in these analyses were modeled for the overall Corridor Study using Metropolitan Washington Council of Governments' (MWCOG) methodologies and Round 6.4A land use data provided by the M-NCPPC. These volumes encompass the approved Cabin Branch Development (Phases 1 and 2) and eleven other pipeline developments within the Clarksburg area. They assume that the mainline capacity consisting of HOV lanes and general-purpose lanes (GPL) are being constrained to encourage other transportation demands (transit, bus car pool) and adding mainline capacity would discourage this plan. Forecasted 2015 and 2030 peak hour volumes for the I-270/MD 121 interchange are shown in *Table D-1*.

Peak hour volumes above were used to determine the LOS during 2015 and 2030 No-build conditions at mainline locations and ramp junctions upstream and downstream of the I-270/MD 121 interchange. *Table D-2* includes a tabulation of LOS results using HCM 2000 software for freeway segments and ramp junctions. Results show an acceptable LOS at each location under 2015 No-Build conditions. However, 2030 No-Build conditions yielded a poor LOS at the following mainline sections and entrance ramps.

- SB I-270, south of MD 121 (AM)
- NB I-270, south of MD 121 (PM)
- SB I-270 at MD 121, on-ramp (AM)

Currently, the I-270/MD 121 interchange serves as the closest access point with direct access to the Cabin Branch Development and the eleven proposed pipeline developments in the Clarksburg area. The proposed Little Seneca Creek Parkway interchange is planned for construction one mile south of MD 121. It is included in the Clarksburg Area Master Plan and has been included in the I-270/US 15 Multi-Modal Corridor Study for planning, design and interstate access approvals. This new interchange will become the primary access point for the Clarksburg area developments and the southern portion of the Cabin Branch development, proposed Corridor Cities Transitway (CCT) terminal station at COMSAT, ETL being planned along I-270, and general purpose lane (GPL) ramps to the Little Seneca Creek Parkway. As such, higher 2030 traffic volumes are projected to use the Little Seneca Creek Parkway interchange, while higher 2015 interim traffic volumes are projected to use the MD 121 interchange for trips to Clarksburg and the Cabin Branch development.

Safety

Accident data was reviewed for I-270 and MD 121 within the study limits for a three-year period between 2002 and 2004. Results for I-270 indicated that a total of 30 accidents occurred during years 2002-2004, and one accident resulted in fatality as shown in *Table E*. Accidents involving injury and property damage resulted in significantly higher accident rates than statewide averages for I-270. Of the total number of accidents, 21 (70%) reported the probable cause as failure to pay attention.

Predominate collision types were rear end (43%) and fixed-object (23%) as shown in *Table F*. According to the collision diagram, an almost equal distribution of them occurred in northbound and southbound directions and approximately 30% of the accidents occurred at the MD 121 bridge overpass.

Results for MD 121 indicated that a total of three accidents occurred during years 2002-2004, and no fatalities were reported as reflected in *Table G*. Accident totals fell below the statewide average rate for similar facilities between the same period. Collision types were reported as rear end, fixed-object and other as reflected in *Table H.*

Results for I-270 ramps indicated that two accidents occurred during years 2002 and 2003, and no fatalities were reported. Collision types were fixed–object and run-off road that occurred on northbound and southbound off-ramps, respectively.

Related Transportation Projects

I-270/US 15 Multi-Modal Corridor Study

The I-270/US 15 Multi-Modal Corridor Study is evaluating detailed alternates between the Shady Grove Metrorail Station and Biggs Ford Road in Frederick County. The MD 121 interchange is within the southern half of this corridor study area. There are five alternates that have been carried into the detailed planning stage for engineering and environmental analysis. These alternates include a No-Build (Baseline) Alternate, a Transportation System/Demand Management Alternate, and three additional alternates considered as the "build" alternates. These alternates include a variety of general-use, HOV and ETL options, a separate transitway alignment known as the Corridor Cities Transitway (CCT), a new interchange at the Little Seneca Creek Parkway (Formerly New Cut Road), as well as incorporating transportation system/demand management strategies.

Widening of the existing structure over I-270 and any additional improvements as part of the I-270/MD 121-Cabin Branch Project Planning Study is to be designed so as to not preclude any of the alternates under consideration as part of the I-270/US 15 Multi-Modal Corridor Study. Ongoing coordination will occur with the I-270/US 15 Multi-Modal Corridor Study Team.

Stringtown Road Extended

Montgomery County has begun construction on a 2,400-foot extension of Stringtown Road westward from MD 355 to the I-270 ramps at MD 121. Stringtown Road is being constructed as a four-lane, divided, closed section arterial highway. It will include a five-foot sidewalk on the south side and an eight-foot bike path on the north side. The road is required to provide access to developments in various stages and will also redirect traffic away from the Clarksburg historic district. The extension is scheduled for completion in fiscal year 2007.

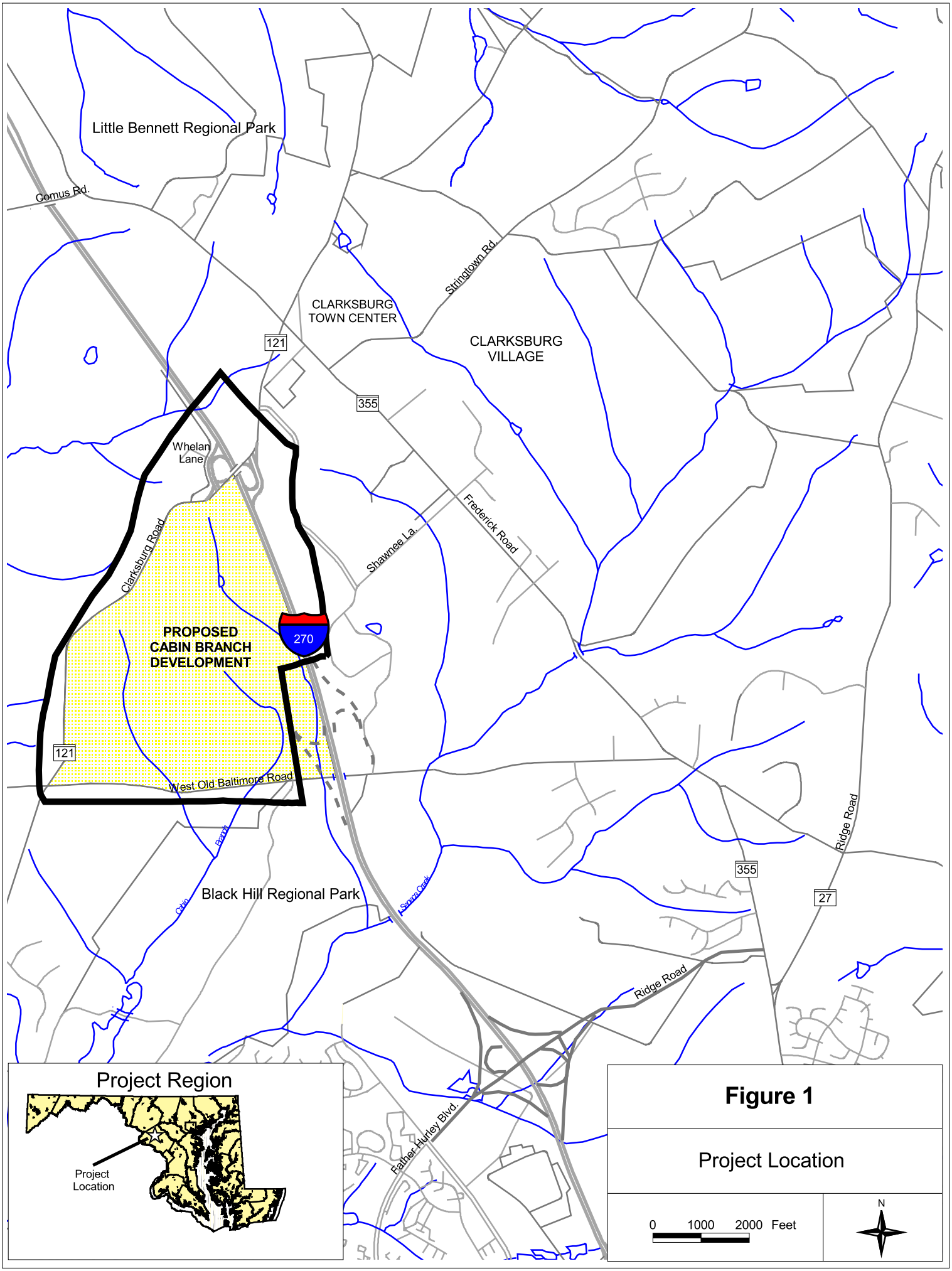
Environmental Issues

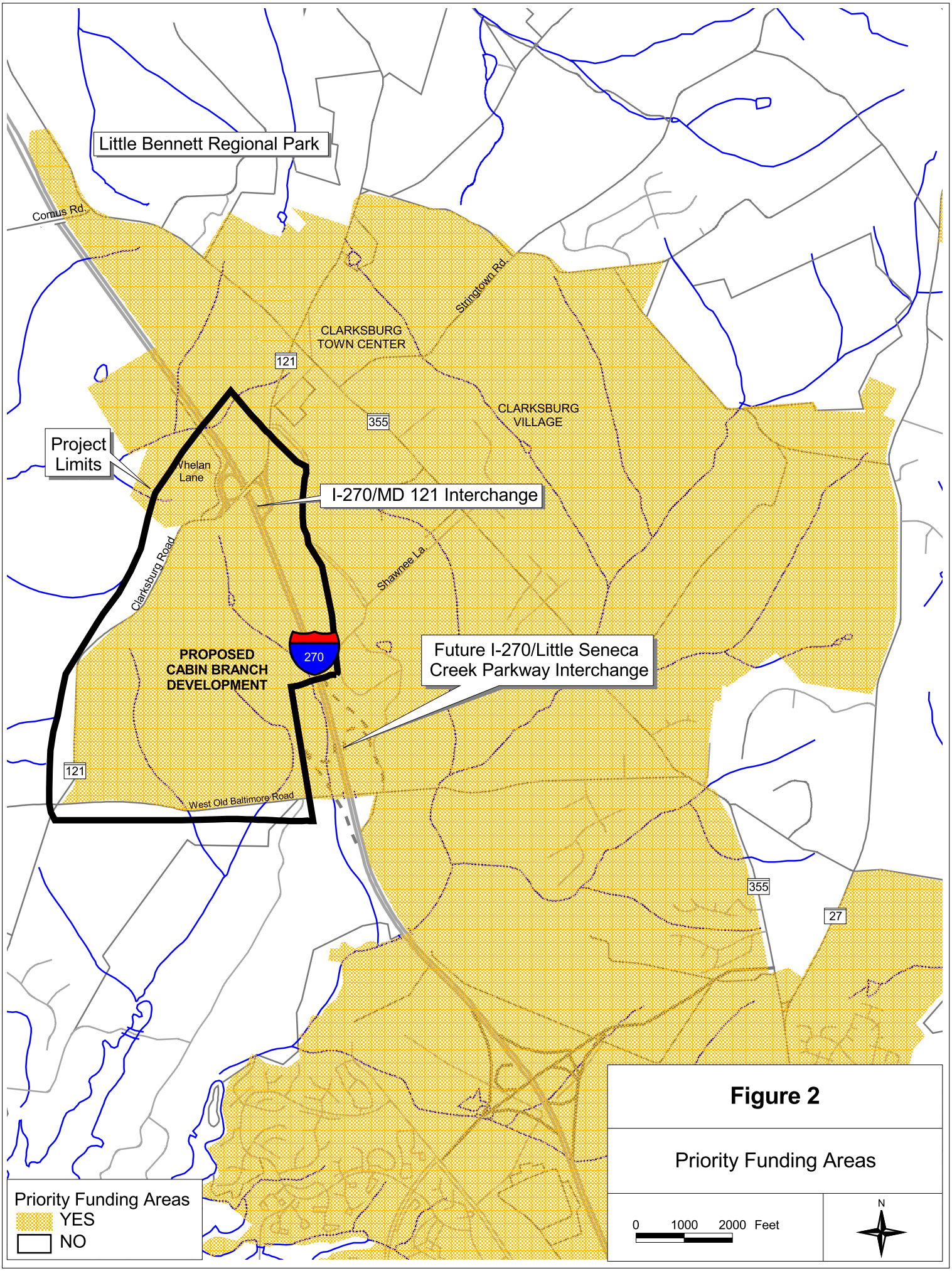
A draft Environmental Assessment Form (EAF) was completed to identify any major socioeconomic, natural, and cultural environmental resources and address potential effects (Direct, Secondary, and Cumulative) within the project limits. It is included with this document as Attachment A.

This project is unlikely to individually or cumulatively, have a significant effect on the human environment in accordance with procedures adopted in regulations (Sec.1507.3) and therefore, neither an environmental assessment nor an environmental impact statement is anticipated.

The keys findings are summarized below:

- Does not contain any 100-year floodplains.
- No water body modifications are expected, however this could change as the alternatives are developed.
- No disturbance, reduction or loss of any rare, unique or valuable plant or animal are expected.
- The use of a public recreation area, park, forest, wildlife management area, scenic river, or wild land is not affected.
- Will not result in the significant reduction or loss of any fish or wildlife habitats.
- Will not affect the use of an archeological or historical site or structure.
- Will not require a permit for the change of the course, current, or cross-section of a stream or other body of water.


Little Bennett Regional Park
Comus Rd.
CLARKSBURG
TOWN CENTER
Stringtown Rd.
CLARKSBURG
VILLAGE
121
355
Whelan
Lane
Clarksburg Road
Shawnee La.
Frederick Road
PROPOSED
CABIN BRANCH
DEVELOPMENT
270
121
West Old Baltimore Road
Ridge Road
355
27
Black Hill Regional Park
Seneca Creek
Ridge Road
Father Hurley Blvd.
Project Region
Project
Location
Figure 1
Project Location
0 1000 2000 Feet
N


Little Bennett Regional Park
Comus Rd.
Stringtown Rd.
CLARKSBURG
TOWN CENTER
121
355
CLARKSBURG
VILLAGE
Project
Limits
Whelan
Lane
I-270/MD 121 Interchange
Clarksburg Road
Shawnee La.
270
PROPOSED
CABIN BRANCH
DEVELOPMENT
Future I-270/Little Seneca
Creek Parkway Interchange
121
West Old Baltimore Road
355
27
Priority Funding Areas
YES
NO
Figure 2
Priority Funding Areas
0 1000 2000 Feet
N

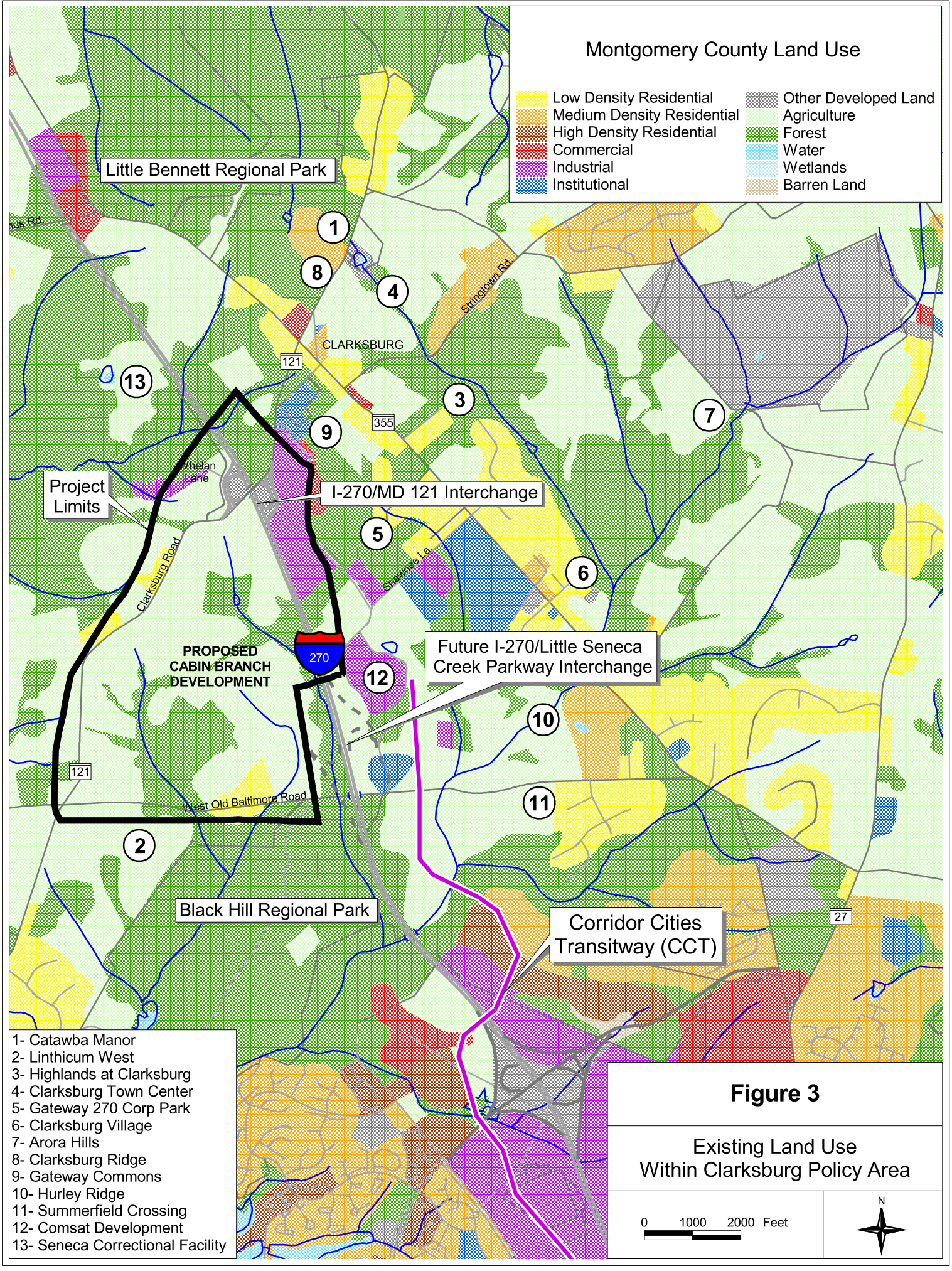


Figure 3

Existing Land Use
Within Clarksburg Policy Area

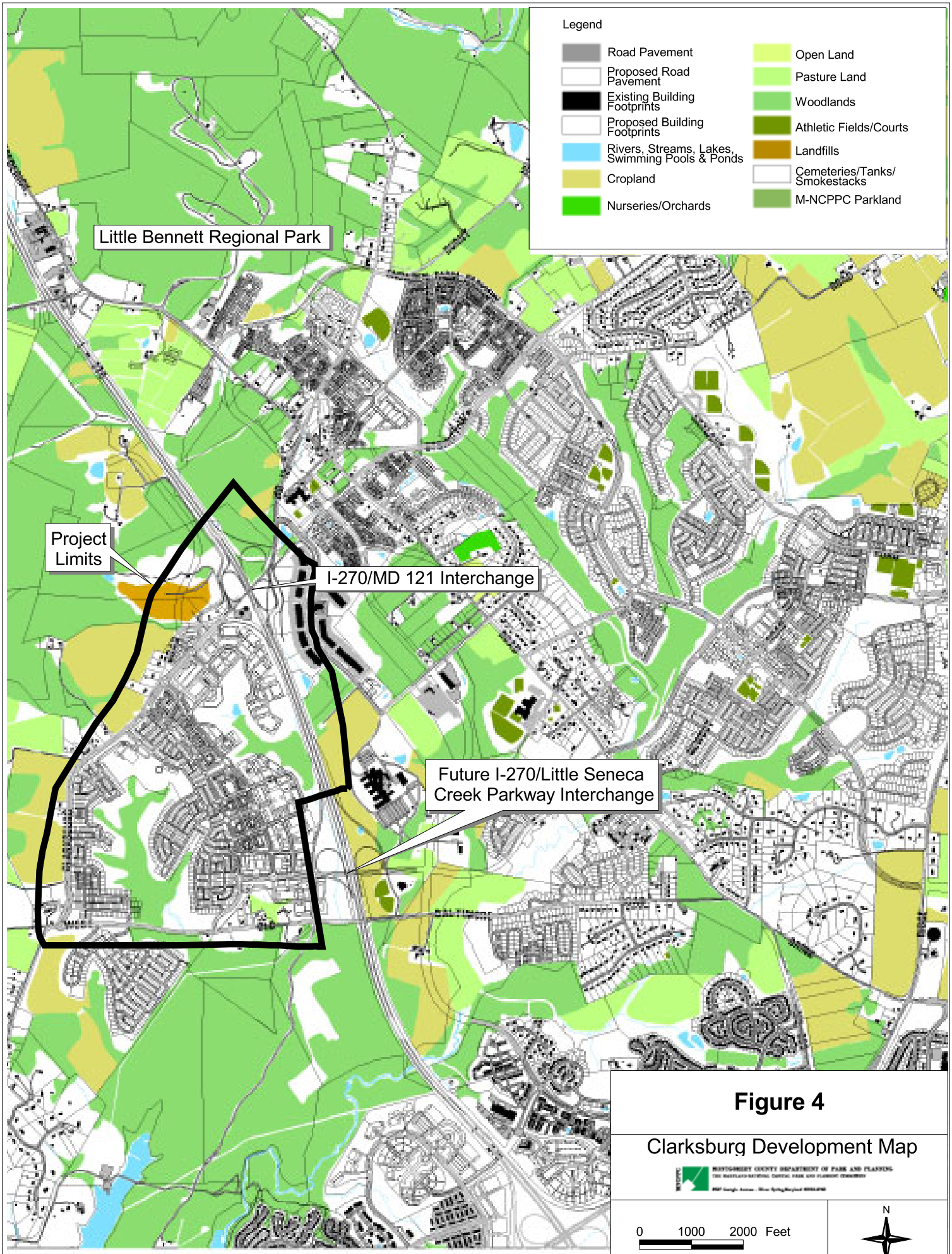


Figure 4

Clarksburg Development Map

Table A-1
ANNUAL AVERAGE DAILY TRAFFIC VOLUMES
ANNUAL PERCENT INCREASE

MD 121	2001	2002	2003	2004	Increase Per Year
West of I-270 Interchange	2,125	3,075	3,150	3,225	3% - 45%
East of I-270 Interchange	9,300	11,875	11,950	12,125	1% - 28%

Source: SHA Montgomery County Traffic Volume Maps 2001 – 04

Table A-2
TRIP DEMAND

Development	Phase	Commercial Space (1000 sq. ft.)	Residential Space (dwelling units)	Peak Hour Trips (AM)	Peak Hour Trips (PM)
Cabin Branch [1]	1	1,538	1,600 500*	2,492	2,899
Cabin Branch [2]	2	898	286	1,179	1,044
Combined Cabin Branch	1&2	2,436	2,386	3,671	3,943
11 Pipeline Developments [3]	1&2	856	6,414	5,036	6,703
Total		**3,292**	**8,800**	**8,707**	**10,646**

Source: Montgomery County Local Area Transportation Review, November 2004
*Elderly Housing Units
[1] Estimated Timeline for completion is 2015
[2] Estimated Timeline for completion is between 2015 and 2030
[3] Estimated Timeline for completion is between 2015 and 2030

Table B-1
2004 EXISTING CRITICAL LANE VOLUMES AND LEVEL OF SERVICE

Intersection Locations	AM CLV (LOS)	PM CLV (LOS)
MD 121/I-270 NB Ramp	473 (A)	440 (A)
MD 121/I-270 SB Ramp	321 (A)	217 (A)
MD 121/Whelan Lane (Street "A")	252 (A)	278 (A)
MD 121/West Old Baltimore Road	208 (A)	359 (A)
MD 121/Gateway Center Drive	716 (A)	937 (A)
MD 121/Frederick Road (MD 355)	1,360 (D)	1,553 (E)
MD 355/Stringtown Road	1,283 (C)	1,334 (D)
MD 355/West Old Baltimore Road	1,525 (E)	1,475 (E)
MD 355/Brink Road	1,526 (E)	1,468 (E)

Source: Montgomery County Local Area Transportation Review, November 2004

Table B-2
2004 LEVEL OF SERVICE

I-270 Mainline Locations	AM	PM
SB I-270 North of MD 121 - 3 Lane section	C	A
SB I-270 South of MD 121 - 3 Lane section	C	B
NB I-270 South of MD 121 - 3 Lane section	A	C
NB I-270 North of MD 121 - 3 Lane section	A	C

Results interpolated from SHA I-270 / US 15 Multi-Modal Corridor Study

Table C-1
EXISTING AND PROJECTED CRITICAL LANE VOLUMES
CABIN BRANCH DEVELOPMENT – PHASE 1

	2004 Existing AM (PM)	2015 Projected AM (PM)	Percent Increase
Intersection of MD 121 at NB I-270 on/off ramp	473 (440)	1,401 (1,499)	196% (241%)
Intersection of MD 121 at SB I-270 on/off ramp	321 (217)	1,081 (863)	237% (298%)

Table C-2
EXISTING AND PROJECTED CRITICAL LANE VOLUMES
CABIN BRANCH DEVELOPMENT – PHASES 1 AND 2

	2004 Existing AM (PM)	2015 Projected AM (PM)	Percent Increase
Intersection of MD 121 at NB I-270 on/off ramp	473 (440)	1,455 (1,442)	208% (228%)
Intersection of MD 121 at SB I-270 on/off ramp	321 (217)	1,327 (994)	313% (358%)

Table D-1
MWCOG 2015 AND 2030 NO BUILD VOLUMES

I-270 Locations	2015 No Build Volumes	2030 No Build Volumes
	AM (PM)	AM (PM)
SB I-270, north of MD 121	4,000 (1,900)	5,650 (2,700)
SB I-270, south of MD 121	5,500 (3,175)	7,350 (4,125)
NB I-270, north of MD 121	1,675 (4,100)	2,475 (5,925)
NB I-270, south of MD 121	2,425 (5,600)	3,200 (7,375)
SB I-270 at MD 121 off-ramp	100 (50)	125 (50)
NB I-270 at MD 121 on-ramp	75 (75)	175 (175)
SB I-270 at MD 121, on-ramp	1,600 (1,325)	1,825 (1475)
NB I-270 at MD 121 off-ramp	825 (1,575)	900 (1,675)

Note: Ramp volumes generated from the MWCOG Traffic Forecasting Model are lower, because the model assumes that mainline and ramp capacities are constrained to encourage selection of an alternate route and/or another transportation mode (i.e. transit, car pool).

Table D-2
LEVEL OF SERVICE CALCULATIONS

I-270 Locations	2004 EXISTING CONDITIONS	2015 MWCOG Model (I-270/US15 Corridor Study)	2030 MWCOG Model (I-270/US15 Corridor Study)
Peak Period	AM (PM)	AM (PM)	AM (PM)
SB I-270, north of MD 121	C (A)	C (A)	D (B)
SB I-270, south of MD 121	C (B)	D (B)	F (C)
NB I-270, north of MD 121	A (C)	A (C)	B (E)
NB I-270, south of MD 121	A (C)	B (D)	B (F)
SB I-270, at MD 121, off-ramp	C (B)	C (B)	D (B)
NB I-270, at MD 121, on-ramp	B (C)	A (C)	B (D)
SB I-270, at MD 121, on-ramp	C (B)	D (C)	F (C)
NB I-270, at MD 121, off-ramp	A (C)	A (C)	B (D)

Table E
ACCIDENT SEVERITY
I-270

Severity	2002	2003	2004	Total	Statewide Average Rate	Statewide Average Rate (for similar highways)
Fatal	-	-	1	1	3.4	0.4
Injury	4	3	6	13	44.5*	18.5
Property Damage	9	1	6	16	54.8*	28.1
Total	13	4	13	30	102.7*	47.1

Note: Accident Data at I-270 at the MD 121 Interchange from log mile 18.26 to 18.58 (0.32 mi.)
** Indicates significantly higher than statewide rates.*

Table F
COLLISION TYPE
I-270

Collision Type	2002	2003	2004	Total	Percent
Rear End	5	2	6	13	43.3%
Sideswipe	1	1	-	2	6.7%
Pedestrian	-	-	1	1	3.3%
Parked Vehicle	1	-	-	1	3.3%
Fixed Object	4	1	2	7	23.4%
Other	2	-	4	6	20.0%
Total	13	4	13	30	100.0%

Table G
ACCIDENT SEVERITY
MD 121

Severity	2002	2003	2004	Total	Statewide Average Rate	Statewide Average Rate (for similar highways)
Fatal	-	-	-	-	0.0	1.2
Injury	1	-	-	1	29.3	85.2
Property Damage	1	-	1	2	58.6	97.1
Total	2	-	1	3	87.9	183.5

Note: Accident Data is along MD 121 at the I-270 Interchange from log mile 3.70 to 3.96 (0.26mi.)
** Indicates significantly higher than statewide rates.*

Table H
COLLISION TYPE
MD 121

Collision Type	2002	2003	2004	Total	Percent
Rear End	1	-	-	1	33.3%
Fixed Object	-	-	1	1	33.3%
Other	1	-	-	1	33.4%
Total	2	0	1	3	100.0%

ATTACHMENT A
Draft Environmental Assessment Form

I-270/MD 121 - Cabin Branch Project Planning Study

The following Draft Environmental Assessment Form is a requirement of the Maryland Environmental Policy Act and Maryland Department of Transportation Order 11.01.06.02. Its use is in keeping with the provisions of 1500.4(k) and 1506.2 and .6 of the Council of Environmental Quality Regulations, effective July 31, 1979, which recommend that duplication of Federal, State and Local procedures be integrated into a single process.

The checklist identifies specific areas of the natural and social-economic environment which have been considered while preparing this environmental assessment. The reviewer can refer to the appropriate section of the document, as indicated in the "Comment" column of the form, for a description of specific characteristics of the natural or social-economic environment within the proposed project area. It will also highlight any potential impacts, beneficial or adverse, that the action may incur. The "No" column indicates that during the scoping and early coordination processes, that specific area of the environment was not identified to be within the project area or would not be impacted by the proposed action.

ATTACHMENT A

Comments

1. This project area does not contain any 100-year floodplains.

3. Review of the Maryland Department of Natural Resources Wetland Inventory mapping, Soil Survey mapping for Montgomery County, the I-270 Multi-Modal Studies, and the Cabin Branch site development plans indicates that wetland systems are located on and near the project site. It is unknown at this time whether impacts and therefore permits will be required.

13. Coordination with the Maryland Historic Trust (MHT) specific to the "breakout project" of expanding the interchange has not been conducted.

14. At this point, no water body modifications are expected, however this could change as the alternatives are developed.

16. Appropriate stormwater management will be provided under any action.

25. The possible addition of a new interstate ramp could change the noise characteristics of the immediate study area.

28. Coordination with the state and federal agencies responsible for protected species specific to the "breakout project" of expanding the interchange has not been conducted.

34. The project, by definition, will affect existing and future traffic flow and volume.

37. The project is not inconsistent with the Montgomery County Comprehensive Plan.

39. The proposed action will allow for the full build out of the County-approved Cabin Branch Mixed Use Development and thus have a positive effect on tax revenue.

47. Environmental documentation, consistent with state regulations, has been completed with completion of this EAF.

ATTACHMENT A

DRAFT ENVIRONMENTAL ASSESSMENT FORM

		YES	NO	COMMENTS
A.	Land Use Considerations			
1.	Will the action be within the 100 year floodplain?		X	X
2.	Will the action require a permit for construction or alteration within the 50 year floodplain?		X	
3.	Will the action require a permit for dredging, filling, draining or alteration of a wetland?		X	X
4.	Will the action require a permit for the construction or operation of facilities for solid waste disposal including dredge and excavation spoil?		X	
5.	Will the action occur on slopes exceeding 15%?		X	
6.	Will the action require a grading plan or a sediment control permit?	X		
7.	Will the action require a mining permit for deep or surface mining?		X	
8.	Will the action require a permit for drilling a gas or oil well?		X	

		YES	NO	COMMENTS
9.	Will the action require a permit for airport construction?		X	
10.	Will the action require a permit for the crossing of the Potomac River by conduits, cables or other like devices?		X	
11.	Will the action affect the use of a public recreation area, park, forest, wildlife management area, scenic river or wildland?		X	
12.	Will the action affect the use of any natural or manmade features that are unique to the county, state, or nation?		X	
13.	Will the action affect the use of an archeological or historical site or structure?		X	X
B.	Water Use Considerations			
14.	Will the action require a permit for the change of the course, current, or cross-section of a stream or other body of water?		X	X
15.	Will the action require the construction, alteration, or removal of a dam, reservoir, or waterway obstruction?		X	

		YES	NO	COMMENTS
16.	Will the action change the overland flow of stormwater or reduce the absorption capacity of the ground?	X		X
17.	Will the action require a permit for the drilling of a water well?		X	
18.	Will the action require a permit for water appropriation?		X	
19.	Will the action require a permit for the construction and operation of facilities for treatment or distribution of water?		X	
20.	Will the project require a permit for the construction and operation of facilities for sewage treatment and/or land disposal of liquid waste derivatives?		X	
21.	Will the action result in any discharge into surface or sub-surface water?		X	
22.	If so, will the discharge affect ambient water quality parameters and/or require a discharge permit?		X	

		YES	NO	COMMENTS
C.	Air Use Considerations			
23.	Will the action result in any discharge into the air?		X	
24.	If so, will the discharge affect ambient air quality parameters or produce a disagreeable odor?		X	
25.	Will the action generate additional noise which differs in character or level from present conditions?	X		X
26.	Will the action preclude future use of related air space?		X	
27.	Will the action generate any radiological, electrical, magnetic, or light influences?		X	
D.	Plants and Animals			
28.	Will the action cause the disturbance, reduction or loss of any rare, unique or valuable plant or animal?		X	X
29.	Will the action result in the significant reduction or loss of any fish or wildlife habitats?		X	

		YES	NO	COMMENTS
30.	Will the action require a permit for the use of pesticides, herbicides or other biological, chemical or radiological control agents?		X	
E.	Socio-Economic			
31.	Will the action result in a pre-emption or division of properties or impair their economic use?		X	
32.	Will the action cause relocation of activities, structures, or result in a change in the population density or distribution?		X	
33.	Will the action alter land values?		X	
34.	Will the action affect traffic flow and volume?	X		X
35.	Will the action affect the production, extra-action, harvest or potential use of a scarce or economically important resource?		X	
36.	Will the action require a license to construct a sawmill or other plant for the manufacture of forest products?		X	

		YES	NO	COMMENTS
37.	Is the action in accord with federal, state, regional and local comprehensive or functional plans- including zoning?	X		X
38.	Will the action affect the employment opportunities for persons in the area?		X	
39.	Will the action affect the ability of the area to attract new sources of tax revenue?	X		X
40.	Will the action discourage present sources of tax revenue from remaining in the area, or affirmatively encourage them to relocate elsewhere?		X	
41.	Will the action affect the ability of the area to attract tourism?		X	
F.	Other Considerations			
42.	Could the action endanger the public health, safety or welfare?		X	
43.	Could the action be eliminated without deleterious affects to the public health, safety, welfare or the natural environment?		X	

		YES	NO	COMMENTS
44.	Will the action be of statewide significance?		X	
45.	Are there any other plans or actions (federal, state, county or private) that, in conjunction with the subject action could result in a cumulative or synergistic impact on the public health, safety, welfare, or environment?		X	
46.	Will the action require additional power generation or transmission capacity?		X	
47.	This agency will develop a complete environmental effects report on the proposed action.	X		X